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From the results obtained in the Table 1, it is clear that the amorphous carbon (a-C) support is superior as little absorption occurs, if compared e.g. with Fe (not suitable for use, even not for a layer thickness of only 100 μm) and with aluminum (suitable for use up to 800 μm for a thinner phosphor layer of 100 μm): amorphous carbon provides enough dose at the position of the phototimer, even for the thickest phosphor layer (150 μm) and a thickness of 2000 μm is perfectly suitable for use! Amorphous carbon is comparable with glass as illustrated in Table 1, but it is superior with respect to glass as it is much more suitable to be applied in the manufacturing of phosphor panels or screens of the present invention.

Having described in detail preferred embodiments of the current invention, it will now be apparent to those skilled in the art that numerous modifications can be made therein without departing from the scope of the invention as defined in the appending claims.

What is claimed is:

1. A binderless storage phosphor panel or screen comprising a vacuum deposited phosphor layer (1) of CsBr:Eu, wherein amounts of Eu-dopant are in the range of from 100 up to 400 p.p.m. versus CsBr, on a support (2) and wherein said support includes a layer of amorphous carbon (23).
2. A binderless storage phosphor panel or screen comprising a vacuum deposited phosphor layer (1) of CsBr:Eu, wherein amounts of Eu-dopant are in the range of from 100 up to 200 p.p.m. versus CsBr, on a support (2) and wherein said support includes a layer of amorphous carbon (23).
3. A binderless phosphor panel or screen according to claim 1, wherein said support further includes a polymeric auxiliary layer (24) farther away from said phosphor layer than said layer of amorphous carbon.

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4. A binderless phosphor panel or screen according to claim 2,
wherein said support further includes a polymeric auxiliary layer
(24) farther away from said phosphor layer than said layer of
amorphous carbon.
5. A binderless phosphor panel or screen according to claim 1,
wherein said support further includes a reflective auxiliary
layer (22).
6. A binderless phosphor panel or screen according to claim 2,
wherein said support further includes a reflective auxiliary
layer (22).
7. A binderless phosphor panel or screen according to claim 3,
wherein said support further includes a reflective auxiliary
layer (22).
8. A binderless phosphor panel or screen according to claim 4,
wherein said support further includes a reflective auxiliary
layer (22).
9. A binderless phosphor panel or screen according to claim 5,
wherein said reflective auxiliary layer (22) is an aluminum layer
with a thickness between 0.2 μm and 200 μm .
10. A binderless phosphor panel or screen according to claim 6,
wherein said reflective auxiliary layer (22) is an aluminum layer
with a thickness between 0.2 μm and 200 μm .
11. A binderless phosphor panel or screen according to claim 7,
wherein said reflective auxiliary layer (22) is an aluminum layer
with a thickness between 0.2 μm and 200 μm .
12. A binderless phosphor panel or screen according to claim 8,
wherein said reflective auxiliary layer (22) is an aluminum layer
with a thickness between 0.2 μm and 200 μm .

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13. A binderless phosphor panel or screen according to claim 5,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
- 5 14. A binderless phosphor panel or screen according to claim 6,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
- 10 15. A binderless phosphor panel or screen according to claim 7,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
- 15 16. A binderless phosphor panel or screen according to claim 8,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
- 20 17. A binderless phosphor panel or screen according to claim 9,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
18. A binderless phosphor panel or screen according to claim 10,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
- 25 19. A binderless phosphor panel or screen according to claim 11,
wherein said support further includes a protective auxiliary
layer (21) between said reflective auxiliary layer and said
phosphor layer.
- 30 20. A binderless phosphor panel or screen according to claim 12,
wherein said support further includes a protective auxiliary

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layer (21) between said reflective auxiliary layer and said phosphor layer.

21. A binderless phosphor panel or screen according to claim 13,
wherein said protective auxiliary layer is a layer of parylene
5 wherein said parylene is selected from the group consisting of
parylene C, parylene D and parylene HT.
22. A binderless phosphor panel or screen according to claim 14,
wherein said protective auxiliary layer is a layer of parylene
wherein said parylene is selected from the group consisting of
10 parylene C, parylene D and parylene HT.
23. A binderless phosphor panel or screen according to claim 15,
wherein said protective auxiliary layer is a layer of parylene
wherein said parylene is selected from the group consisting of
parylene C, parylene D and parylene HT.
- 15 24. A binderless phosphor panel or screen according to claim 16,
wherein said protective auxiliary layer is a layer of parylene
wherein said parylene is selected from the group consisting of
parylene C, parylene D and parylene HT.
25. A binderless phosphor panel or screen according to claim 17,
20 wherein said protective auxiliary layer is a layer of parylene
wherein said parylene is selected from the group consisting of
parylene C, parylene D and parylene HT.
26. A binderless phosphor panel or screen according to claim 18,
wherein said protective auxiliary layer is a layer of parylene
25 wherein said parylene is selected from the group consisting of
parylene C, parylene D and parylene HT.
27. A binderless phosphor panel or screen according to claim 19,
wherein said protective auxiliary layer is a layer of parylene
wherein said parylene is selected from the group consisting of
30 parylene C, parylene D and parylene HT.

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28. A binderless phosphor panel or screen according to claim 20, wherein said protective auxiliary layer is a layer of parylene wherein said parylene is selected from the group consisting of parylene C, parylene D and parylene HT.

5 29. A method for producing a binderless storage phosphor panel comprising the steps of :
- providing an amorphous carbon film,
- vacuum depositing a storage phosphor layer of CsBr:Eu, wherein
amounts of Eu-dopant are in the range of from 100 up to 400
10 p.p.m. versus CsBr, on said amorphous carbon film and,
optionally,
- laminating method a polymeric film on the side of the amorphous carbon film not covered by said phosphor.

15 30. A method for producing a binderless storage phosphor panel comprising the steps of :
- providing an amorphous carbon film,
- vacuum depositing a storage phosphor layer of CsBr:Eu, wherein
amounts of Eu-dopant are in the range of from 100 up to 200
p.p.m. versus CsBr, on said amorphous carbon film and,
20 optionally,
- laminating method a polymeric film on the side of the amorphous carbon film not covered by said phosphor.

31. A method according to claim 29, wherein before said step of vacuum depositing a storage phosphor layer on said amorphous
25 carbon film a step of applying a specularly reflecting layer on said amorphous carbon film is included.

32. A method according to claim 30, wherein before said step of vacuum depositing a storage phosphor layer on said amorphous carbon film a step of applying a specularly reflecting layer on
30 said amorphous carbon film is included.

33. Use in mammography of a screen or panel according to claim 1.

34. Use in mammography of a screen or panel according to claim 2.
35. Use in mammography of a screen or panel according to claim 3.
36. Use in mammography of a screen or panel according to claim 4.
37. Use in mammography of a screen or panel according to claim 5.
- 5 38. Use in mammography of a screen or panel according to claim 6.
39. Use in mammography of a screen or panel according to claim 7.
40. Use in mammography of a screen or panel according to claim 8.
41. Use in mammography of a screen or panel according to claim 9.
42. Use in mammography of a screen or panel according to claim 10.
- 10 43. Use in mammography of a screen or panel according to claim 11.
44. Use in mammography of a screen or panel according to claim 12.
45. Use in mammography of a screen or panel according to claim 13.
46. Use in mammography of a screen or panel according to claim 14.
47. Use in mammography of a screen or panel according to claim 15.
- 15 48. Use in mammography of a screen or panel according to claim 16.
49. Use in mammography of a screen or panel according to claim 17.
50. Use in mammography of a screen or panel according to claim 18.
51. Use in mammography of a screen or panel according to claim 19.
52. Use in mammography of a screen or panel according to claim 20.

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53. Use in mammography of a screen or panel according to claim 21.

54. Use in mammography of a screen or panel according to claim 22.

55. Use in mammography of a screen or panel according to claim 23.

56. Use in mammography of a screen or panel according to claim 24.

5 57. Use in mammography of a screen or panel according to claim 25.

58. Use in mammography of a screen or panel according to claim 26.

59. Use in mammography of a screen or panel according to claim 27.

60. Use in mammography of a screen or panel according to claim 28.